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RAW SEQUENCE LISTING

DATE: 05/13/2002 P.le
TIME: 09:50:36

PATENT APPLICATION: US/10/043,487

Input Set : N:\jumbos\10043487.RAW.txt

Output Set: N:\CRF3\05102002\J043487.raw

3 <110> APPLICANT: HYBRIGENICS
 4 Pierre, LEGRAIN
 6 <120> TITLE OF INVENTION: Protein-protein interactions between Shigella Flexneri polypeptides and
 7 mammalian polypeptides
 9 <130> FILE REFERENCE: B4778A
 11 <140> CURRENT APPLICATION NUMBER: US 10/043,487
 C--> 12 <141> CURRENT FILING DATE: 2002-04-30
 14 <150> PRIOR APPLICATION NUMBER: US 60/261,130
 15 <151> PRIOR FILING DATE: 2001-01-12
 17 <160> NUMBER OF SEQ ID NOS: 561
 19 <170> SOFTWARE: PatentIn version 3.1
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 22 <211> LENGTH: 888
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Shigella Flexneri
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 31 aaagcagcat tggttttttt aggagagaaa ggtttttgtg atagcaatga tgttctatct 180
 33 attatgggac aacaaatacc aagagtattt aagaacaaga tgttatatga ttatgttttt 240
 35 aaaaatgaaa aaagtaaaaa tgatttttcta aaaatggctg aatcatggct accacagagt 300
 37 gaaccaatag taataaataa tgatgatgac gcattgaatg ctgctgctta tttttctgta 360
 39 aaaaaagcga aaataaaaac agtaaacgat actgatttta aagagtataa taaggtttat 420
 41 attcttgggc acggtagtcc tggttctcat caattaggcc ttggttcgga acttattgat 480
 43 gtacaaacaa tcatttcaag aatgaaagac tgtggtattc taaatgtgaa agatatccgt 540
 45 tttacttcat gcggctccgc tgataaagtg gctcctaaaa attttaacaa tgcccctgct 600
 47 gaaagtcttt ctgtatcct taactctctg ccttttttta aggaaaaaga atctttgcta 660
 49 gagcagataa aaaaacacct tgaaaacgat gagtcattga gtgatggtct aaaaatatcc 720
 51 ggctatcatg gatattggagt tcaatattgt caagagcttt ttccctactc acattatcgt 780
 53 tcaacttcaa ttctgctga tccggagcat acagtaaaaa gaagctctca gaaaaagact 840
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 68 accgctatat cccacgccat caatgaagaa aaatcagggg ggggatatag tgggttttct 180
 70 ttcagaaaat tggccaaaat acagaacata tccattccga caaagaataa taaggagtat 240
 72 aaccgccata atttgttttc attgatttgg catggaaatg ccgatgcagc gcgtaaatac 300
 74 agtgaatcgc tgttggcagc cgaaataccc aaagaggaaa aactagaagt tcttgacgca 360
 76 cgaaataatg ctggggaatc tgctttgttc atagctcttc aagaaggtca ttccgctgcg 420

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82 aatatcgagg ctatgatggc atatataaat atatgccatc atagtgggat aaaacttaca 600
84 gaaatagcag acagacttaa caataatgaa caagacatgt ttaatatatt ttctgacaaa 660
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99 atgccagatg aaaaaaattt aaaagatagt gcaaatatta ttaaagattt ctttaggaaa 180
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103 aatatagcaa ttgatgcacc atcagacgct aaagcctcat ttaaggctat tgagcacctt 300
105 gacagattat cgaagcatta tatatctgaa ataagggaaa aacttcatcc tctttctgca 360
107 gaggaactca atttgctttc gctaattatt aattctgatt taatcttcag acatcaaagt 420
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154 gtaagttccc ttactatgct caacgacacc cttcataata tcagaacaac aaatcaggca 180
156 ttaaagaaaag agctttcaca aaaaacggtt actaaaacat cgctagaaga aatagcatta 240
158 cattcatctc agattagcat ggatgtaaat aaatccgctc aactattgga tattctttcc 300
160 aggaacgaat atccaattaa taaagacgca agagaattat tacattcagc cccgaaagaa 360
162 gccgagcttg atggagatca aatgatattc catagagaac tgtgggctaa aattgcaaac 420
164 tccatcaatg atattaatga acagtattctg aaagtatatg aacatgccgt tagttcatat 480
166 actcaaatgt atcaagattt tagcgtgttt ctttccagtc ttgccggctg gatctctccc 540
168 ggaggtaacg acggaaactc cgtgaaatta caagtcaact cgcttaaaaa ggcattggaa 600

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174 aacgggggat atgttgctag tataaacatg accccaatag acaatatgtt aaaaagctta 780
176 gataatctag gtggaatgg cgagggtgtg ctagataatg caaaatatca ggcatggaat 840
178 gccggattct ctgccgaaga tgaacaatg aaaaataatc ttcaaacttt agttcaaaaa 900
180 tacagtaatg ccaatagtat ttttgataat ttagtaaagg ttttgagtag tacaataagc 960
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195 caaagttctt ccgaaacaca aaaatcacaa aattatcagc agattgcagc gcatattcca 180
197 cttaatgtcg gtaaaaatcc cgtattaaca accacattaa atgatgatca actttttaag 240
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209 gtcacacaag taggtataac gggatatcgg gcaaaaaaaa cgcattcagg gattagcgac 600
211 caaaaaggag ccttaagaaa gaaccttgcc actgctcaat ctcttgaaaa agagcttgca 660
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217 gaacataaaa cttctcttag ttctcccgat atttctttgc aggataaaat tgacaccag 840
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244 cttcgactgg accgtttaaa tctgtcctcg ctacctgaca acttaccagc tcagataacg 240
246 ctgctcaatg tatcatataa tcaattaaact aacctacctg aactgcctgt tacgctaaaa 300
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258 cttaatctga ggaatgaatg ttcaatacat attagtgata acccattatc atcccagct 660
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266 gagcatgcc aacacctttt cgcgttcctt gaccgccttt ccgataccgt ctctgcacgc      900
268 aatacctccg gattccgtga acaggtoctt gcatggctgg aaaaactcag tgcctctgcg      960
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285 atctttgaag atgtgaatga ttcatctgct ttgtataaaa agtatgatct tattggcaac     180
287 cagtacaatg agattctgga aatggcttgg caagaatctg agctttttta tgctttttat     240
289 ggcgatgaag catccgttgt tatacagtat ggcggagatg tgtacctccg aatgctgcgc     300
291 gtgcctggga ctccccttag tgacattgat acagctgata tccctgataa tatagagagc     360
293 ctttatctac agttgatatg taaattgaat gagttgagta taatccatta cgatcttaat     420
295 acaggtaata tgctgtatga taaagaaagt gaaagtttat tcccaataga ttttcgcaat     480
297 atttatgctg aatattacgc tgcaacaaaa aaagataaag agattatcga ccgacgatta     540
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315 Asn Glu Ser Ile Ser Asp Ile Ala Phe Ala His Ile Ile Lys Arg Val
316 20 25 30
319 Lys Asn Ser Ser Cys Thr His Pro Lys Ala Ala Leu Val Phe Leu Gly
320 35 40 45
323 Glu Lys Gly Phe Cys Asp Ser Asn Asp Val Leu Ser Ile Met Gly Gln
324 50 55 60
327 Gln Ile Pro Arg Val Phe Lys Asn Lys Met Leu Tyr Asp Tyr Val Phe
328 65 70 75 80
331 Lys Asn Glu Lys Ser Lys Asn Asp Phe Leu Lys Met Ala Glu Ser Trp
332 85 90 95
335 Leu Pro Gln Ser Glu Pro Ile Val Ile Asn Asn Asp Asp Ala Leu
336 100 105 110
339 Asn Ala Ala Ala Tyr Phe Ser Val Lys Lys Ala Lys Ile Lys Thr Val
340 115 120 125
343 Asn Asp Thr Asp Phe Lys Glu Tyr Asn Lys Val Tyr Ile Leu Gly His
344 130 135 140
347 Gly Ser Pro Gly Ser His Gln Leu Gly Leu Gly Ser Glu Leu Ile Asp
348 145 150 155 160
351 Val Gln Thr Ile Ile Ser Arg Met Lys Asp Cys Gly Ile Leu Asn Val
352 165 170 175

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360      195      200      205
363 Ser Leu Pro Phe Phe Lys Glu Lys Glu Ser Leu Leu Glu Gln Ile Lys
364      210      215      220
367 Lys His Leu Glu Asn Asp Glu Ser Leu Ser Asp Gly Leu Lys Ile Ser
368 225      230      235      240
371 Gly Tyr His Gly Tyr Gly Val His Tyr Gly Gln Glu Leu Phe Pro Tyr
372      245      250      255
375 Ser His Tyr Arg Ser Thr Ser Ile Pro Ala Asp Pro Glu His Thr Val
376      260      265      270
379 Lys Arg Ser Ser Gln Lys Lys Thr Phe Ile Ile Asn Lys Glu Leu Asp
380      275      280      285
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384 <211> LENGTH: 225
385 <212> TYPE: PRT
386 <213> ORGANISM: Shigella Flexneri
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394 His Leu Ile Ile Gly Ser Asn Thr Ala Asn Glu Asn Lys Gly Met Lys
395      20      25      30
398 Asn Asn Ile Ile Asn Val Thr Asn Thr Ala Ile Ser His Ala Ile Asn
399      35      40      45
402 Glu Glu Lys Ser Gly Gly Gly Tyr Ser Gly Val Ser Phe Arg Lys Leu
403      50      55      60
406 Ala Lys Ile Gln Asn Ile Ser Ile Pro Thr Lys Asn Asn Lys Glu Tyr
407 65      70      75      80
410 Asn Arg His Asn Leu Phe Ser Leu Ile Trp His Gly Asn Ala Asp Ala
411      85      90      95
414 Ala Arg Lys Tyr Ser Glu Ser Leu Leu Ala Ala Glu Ile Pro Lys Glu
415      100     105     110
418 Glu Lys Leu Glu Val Leu Ala Ala Arg Asn Asn Ala Gly Glu Ser Ala
419      115     120     125
422 Leu Phe Ile Ala Leu Gln Glu Gly His Ser Ala Ala Ile Gln Ala Tyr
423      130     135     140
426 Gly Asp Phe Ile Lys Thr Phe Asp Leu Ser Pro Lys Glu Thr Ile Lys
427 145     150     155     160
430 Leu Leu Asp Val Arg Asp Asn Glu Gly Leu Pro Gly Leu Phe Leu Ala
431      165     170     175
434 Ala Gly Lys Gly Asn Ile Glu Ala Met Met Ala Tyr Ile Asn Ile Cys
435      180     185     190
438 His His Ser Gly Ile Lys Leu Thr Glu Ile Ala Asp Arg Leu Asn Asn
439      195     200     205
442 Asn Glu Gln Asp Met Phe Asn Ile Ile Ser Asp Lys Ile Gln Glu Leu
443      210     215     220
446 Phe
447 225

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/043,487DATE: 05/13/2002
TIME: 09:50:38Input Set : N:\jumbos\10043487.RAW.txt
Output Set: N:\CRF3\05102002\J043487.rawPlease Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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RAW SEQUENCE LISTING ERROR SUMMARY
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Seq#:90; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:90; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43
Seq#:90; N Pos. 44,259,281,287
Seq#:93; N Pos. 294
Seq#:94; N Pos. 43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62
Seq#:94; N Pos. 63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82
Seq#:94; N Pos. 83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101
Seq#:94; N Pos. 102,103,104,105,106,107,108,109,110,111,112,113,114,115,116
Seq#:94; N Pos. 117,118,119,120,121,122,123,124,125,126,127,128,129,130,131
Seq#:94; N Pos. 132,133,134,135,136,137,138,139,140,141,142,143,144,145,146
Seq#:94; N Pos. 205,206,207,208,217,218,221,222,225,228,230,235,238,239,243
Seq#:94; N Pos. 245,248,252,254,255,259,261,264,268,269,273,277,279,282,288
Seq#:94; N Pos. 293,297
Seq#:102; N Pos. 3,6,18,20,23,32,53,75,89,93,95,103,109,127,177,189,194,201
Seq#:102; N Pos. 207,221,224,234,235,244,245,247,259,262,263,264,265,269
Seq#:102; N Pos. 271,277
Seq#:103; N Pos. 7,14,23,45,46,55,65,74,88,89,90,91,97,102,103,104,105,125
Seq#:103; N Pos. 127,128,132,133,143,155,167,188,196,197,198,204,213,223
Seq#:103; N Pos. 264,278,298,304,316,319
Seq#:109; N Pos. 1,2,11,22,36,37,38,45,47,48,53,58,70,73,89,96,100,101,102
Seq#:109; N Pos. 103,107,111,114,119,127,130,131,135,138,145,147,148,149
Seq#:109; N Pos. 164,165,166,169,177,187,190,194,208,212,215,223,230,233
Seq#:109; N Pos. 234,243,261,263,288,290,291,294,296
Seq#:115; N Pos. 3,8,10,11,40,46,62,65,80,96,99,114,115,125,146,147,150,169
Seq#:115; N Pos. 179,184,185,188,191,198,199,208,215,221,224,238,244,256
Seq#:115; N Pos. 258,264,289,297
Seq#:153; N Pos. 2,6,12,16,20,38,82,88,98,103,105,141,142,143,144,146,149
Seq#:153; N Pos. 151,155,160,163,170,184,190,193,199,208,213,219,221,225
Seq#:153; N Pos. 226,230,233,237,240,245,250,256,268,270,271,272,280
Seq#:155; N Pos. 87
Seq#:162; N Pos. 261
Seq#:170; N Pos. 193,203,209,219,222,224,244,247,259,261,268,269
Seq#:176; N Pos. 251,268,270
Seq#:202; N Pos. 116,204,235,268,269,277,283
Seq#:203; N Pos. 1,5,12,14,16,216,219,242,262,269,275,288,291,293,295
Seq#:205; N Pos. 12,19,20,22,38,39,44,67,75,76,80,88,100,108,115,117,128
Seq#:205; N Pos. 129,130,131,132,135,143,168,170,212,223,224,237,238,239
Seq#:205; N Pos. 250,251,254,257,259,267,275,276,279,283,284,288,290,299
Seq#:205; N Pos. 300
Seq#:210; N Pos. 242,272,279,283
Seq#:212; N Pos. 285
Seq#:214; N Pos. 1,5,7,22,32,33,34,35,51,55,60,61,69,71,72,79,81,87,92,94
Seq#:214; N Pos. 97,98,99,106,107,108,111,126,127,128,140,152,160,169,172
Seq#:214; N Pos. 188,200,208,214,220,222,223,224,228,231,235,244,254,271

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Seq#:214; N Pos. 272,280,281,285
Seq#:218; Xaa Pos. 1,2,4,5,10,14,18,20,29,33,37,38,39,43,44,47,48,50,54,60
Seq#:218; Xaa Pos. 61,65,68,69,73,75,78
Seq#:235; Xaa Pos. 34
Seq#:257; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:257; Xaa Pos. 23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41
Seq#:257; Xaa Pos. 42,43,44,61
Seq#:262; Xaa Pos. 1,3,4,6,8,9,10,14,19,21
Seq#:273; Xaa Pos. 4,5,6
Seq#:274; Xaa Pos. 19
Seq#:276; Xaa Pos. 21,22,24,25,26,27,28,29,30,31,33,34,35,36,37,38,40,41,44
Seq#:276; Xaa Pos. 46,49
Seq#:289; Xaa Pos. 9,10,11,12,14,15,16,17,18,20,21,22,23,24
Seq#:291; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
Seq#:295; Xaa Pos. 15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33
Seq#:295; Xaa Pos. 34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49
Seq#:303; Xaa Pos. 2,6,7,8,11,18
Seq#:304; Xaa Pos. 3,5,8,15,16,19,22,25,30,31,33,34,35,42,43,45,48,52,56,63
Seq#:304; Xaa Pos. 66,71,75,88,93,100,102,106
Seq#:310; Xaa Pos. 1,4,8,13,16,18,20,24,25,30,34,35,36,38,40,43,44,45,49,50
Seq#:316; Xaa Pos. 1,3,4,14,16
Seq#:354; Xaa Pos. 1,2,6,7,13,28,30,33,35
Seq#:356; Xaa Pos. 29
Seq#:371; Xaa Pos. 65
Seq#:404; Xaa Pos. 1,2,4,5,6
Seq#:406; Xaa Pos. 4,7,8,13,15
Seq#:415; Xaa Pos. 1,2,3,8,11,12,17,19,20,21,24,27,29,31,32,33,36,43,47
Seq#:430; Xaa Pos. 2,3,4,7,8
Seq#:431; Xaa Pos. 10,12,14,16
Seq#:433; Xaa Pos. 12,23
Seq#:434; Xaa Pos. 19
Seq#:438; Xaa Pos. 5,10,13,14,15,16,17,18,19,23,25,26,27,28,30,31,33,34,35
Seq#:438; Xaa Pos. 38,39,40,42,43,44,45,48,52,53,55,56,57,60,61
Seq#:444; Xaa Pos. 8,9,13
Seq#:445; Xaa Pos. 5,6,11,14,15,17,18,20,21,24,25,26,29,33
Seq#:446; Xaa Pos. 1,4,7
Seq#:447; Xaa Pos. 2,3,4,5,7
Seq#:449; Xaa Pos. 7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26
Seq#:449; Xaa Pos. 27,28,29,30,31,32,33,34,35,36
Seq#:454; Xaa Pos. 12
Seq#:459; Xaa Pos. 1,2,3,7,12,14
Seq#:460; Xaa Pos. 1,2,4,6,11,16,22,25,28,29,31,34,41,43,45,49,50,51,53,54
Seq#:460; Xaa Pos. 55,56,63,65,70,71
Seq#:461; Xaa Pos. 1
Seq#:462; Xaa Pos. 5
Seq#:463; Xaa Pos. 3,21,29,41,42,43,47,48,50,51,53,54,57,58,59,60,61,62,63
Seq#:463; Xaa Pos. 64,66
Seq#:465; Xaa Pos. 22,23
Seq#:466; Xaa Pos. 4

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Input Set : N:\jumbos\10043487.RAW.txt
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Seq#:467; Xaa Pos. 1,7
Seq#:468; Xaa Pos. 1,2,4,5,7,9,10,12,16,19,23,24,25,26,27,28
Seq#:470; Xaa Pos. 29
Seq#:471; Xaa Pos. 1,2,3,5,8,11,12,14,15,17,18
Seq#:472; Xaa Pos. 2,3,7,11,12,15,18,20,21
Seq#:475; Xaa Pos. 2
Seq#:486; Xaa Pos. 4
Seq#:487; Xaa Pos. 1
Seq#:488; Xaa Pos. 1,7,9,11,12,17,19,22,23,24,28,32,34
Seq#:489; Xaa Pos. 5
Seq#:490; Xaa Pos. 1,3,6,7,8,10,12
Seq#:491; Xaa Pos. 1,2,4,5,8,9
Seq#:496; Xaa Pos. 30,37,39
Seq#:502; Xaa Pos. 6,7,10,11,12,13,14,16,17,19,20,22,24,27,30,33,35,36
Seq#:515; Xaa Pos. 2,7,9,12,14
Seq#:516; Xaa Pos. 1,17,23,32,33,36,37,40,41,45,46,47,48,49
Seq#:517; Xaa Pos. 1,2,3,9,10,11,16,17,18
Seq#:518; Xaa Pos. 2,4,5,8
Seq#:519; Xaa Pos. 4,5,13,14,16
Seq#:520; Xaa Pos. 2,3,8,19,20,23,30,38,41,43,44,45,48,51,53,55,56,61,63,67
Seq#:520; Xaa Pos. 69,78
Seq#:533; Xaa Pos. 9,10,11,12,13,15,16,18,23,25,26
Seq#:534; Xaa Pos. 1,4,7,8,10,11,12,14,16,18,20,24,25
Seq#:540; Xaa Pos. 47
Seq#:541; Xaa Pos. 1,3,8,15,16,20,23
Seq#:547; Xaa Pos. 5,11
Seq#:548; Xaa Pos. 18
Seq#:551; Xaa Pos. 15,26,29,31
Seq#:556; Xaa Pos. 9,10,18,25,27,29,34,35,36
Seq#:561; Xaa Pos. 4,6,7,8,11,15,17,20,24,25,26,29,37,38,52,56,60,61,65,66
Seq#:561; Xaa Pos. 67,68,70,73,76,78,81

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Input Set : N:\jumbos\10043487.RAW.txt

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:1235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:60
L:1237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:120
L:1239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:180
L:1241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:240
L:1636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:180
L:1638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:240
L:1802 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:60
L:1808 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:240
L:1810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:300
L:2257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:240
L:2456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0
L:2458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:60
L:2460 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:120
L:2462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:180
L:2464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:240
L:2723 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:120
L:2725 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:180
L:2727 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:240
L:2729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:300
L:2874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:240
L:3093 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:3095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:60
L:3097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:120
L:3099 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:180
L:3101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:240
L:3432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:120
L:3434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:180
L:3436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:240
L:3459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:240
L:3791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
L:3793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:60
L:3795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:120
L:3797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:180
L:3799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:240
L:3970 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0
L:3972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:60
L:3974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:120
L:3976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:180
L:3978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:240
L:4143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0
L:4147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:120
L:4149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:180
L:4151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:240
L:4153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:300
L:4176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:240
L:4433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:60

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L:4435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:120
L:4437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:180
L:4439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:240